WHAT IS CLAIMED IS:

1. An information processing system capable of resuming an operation, by using system data saved in a memory immediately before the system was suspended, the system comprising:

means, responsive to occurrence of a wakeup event while the system is in a suspended state, for causing a BIOS program to execute a resume sub-process to restore an operation environment of a system core necessary to operate an operating system, the resume sub-process being included in a first resume process executed by the BIOS program;

means, responsive to completion of the resume sub-process, for causing the operating system to start execution of a second resume process for restoring an operating environment of each of devices other than the system core; and

means for inserting interrupt processes in which the BIOS program executes a remaining resume sub-process of the first resume process, into the second resume process, so as to execute the remaining resume sub-process and the second resume process in a parallel manner, the remaining resume sub-process including a preprocess for enabling the devices to be subjected to the second resume process.

2. The information processing system according to claim 1, wherein the interrupt processes inserting

means includes means for issuing an interrupt signal to a CPU of the information processing system at predetermined regular time intervals to thereby insert the interrupt processes.

3. The information processing system according to claim 1, further comprising means for causing the operating system to determine whether or not the preprocess has been executed on each of the devices, thereby prohibiting execution of the second resume process on any device that has not yet been subjected to the preprocess.

4. The information processing system according to claim 1, wherein in the preprocess, commands necessary to restore the devices to a state in which the second resume process can be executed, are sequentially issued to the devices.

5. The information processing system according to claim 1, wherein in the preprocess, commands necessary to restore the devices to a state in which the second resume process can be executed, are sequentially issued to the devices, and the interrupt processes inserting means includes means, that is responsive to an interrupt, output from each of the devices and indicating completion of a process based on the command, for issuing an interrupt signal for inserting each of the interrupt processes, to a CPU of the information processing system.

6. An information processing system comprising:

a plurality of devices;

means, responsive to occurrence of an power down event for suspending the operation of the system, for shifting a state of the devices from an working state to a sleep state;

means for saving status data of the devices shifted to the sleep state in a memory incorporated in the information processing system, and then making the information processing system enter a sleep mode;

first resume means, responsive to occurrence of a wakeup event indicating that the information processing system should be restored from the sleep mode, for restoring the devices to the sleep state using the status data saved in the memory;

second resume means for restoring the devices restored to the sleep state, to the working state; and

control means for operating the first resume means and the second resume means in a parallel manner so that restoration of the devices to the working state can be sequentially started, beginning from that one of the devices, which has been first restored to the sleep state.

7. The information processing system according to claim 6, wherein the second resume means includes means for determining whether or not each of the devices has been restored to the sleep state, and means for

sequentially starting restoration of the devices to the working state, beginning from that one of the devices, which has been first restored to the sleep state.

8. The information processing system according to claim 6, wherein the control means alternately operates the first and second resume means at regular intervals, using an interrupt signal output from a timer.

9. The information processing system according to claim 6, wherein the first resume means includes means for sequentially issuing each of commands, necessary for restoring the devices to the sleep state, to a corresponding one of the devices, so that processes based on the commands can be executed on the devices in a parallel manner.

10. The information processing system according to claim 6, wherein:

the first resume means includes means for sequentially issuing each of commands, necessary for restoring the devices to the sleep state, to a corresponding one of the devices, so that processes based on the commands can be executed on the devices in a parallel manner; and

the control means includes means for monitoring an interrupt signal that is output from each of the devices and indicates completion of a command process on said each of the devices, and means for switching resume means from the second resume means to the first

resume means each time occurrence of the interrupt signal is detected, in order to enable a next command to be issued to said each of the devices having been subjected to the command process.

11. A method of executing a resume process for resuming an operation of an information processing system, by using system data saved in a memory immediately before the system was suspended, the method comprising:

causing a BIOS program to execute, in response to occurrence of a wakeup event while the system is in a suspended state, a resume sub-process to restore an operation environment of a system core necessary to operate an operating system, the resume sub-process being included in a first resume process executed by the BIOS program;

causing the operating system to start execution of a second resume process for restoring an operating environment of each of devices other than the system core, upon completion of the resume sub-process; and

inserting interrupt processes in which the BIOS program executes a remaining resume sub-process of the first resume process, into the second resume process, so as to execute the remaining resume sub-process and the second resume process in a parallel manner, the remaining resume sub-process including a preprocess for enabling the devices to be subjected to the second

resume process.

12. The method according to claim 11, wherein the interrupt processes inserting includes issuing an interrupt signal to a CPU of the information processing system at predetermined regular time intervals to thereby insert the interrupt processes.

13. A method of resuming an operation of an information processing system including a plurality of devices, the method comprising:

shifting a state of the devices from an working state to a sleep state in response to occurrence of an power down event for suspending the operation of the system;

saving status data of the devices shifted to the sleep state in a memory incorporated in the information processing system, and then making the information processing system enter a sleep mode;

executing a first resume process for restoring the devices to the sleep state using the status data saved in the memory, in response to occurrence of a wakeup event indicating that the information processing system should be restored from the sleep mode; and

executing a second resume process for restoring the devices restored to the sleep state, to the working state, wherein the first resume process and the second resume process are alternatively executed so that restoration of the devices to the working state can be

sequentially started, beginning from that one of the devices, which has been first restored to the sleep state.

14. The method according to claim 13, wherein the executing the first resume process includes sequentially issuing commands, necessary for restoring the devices to the sleep state, to a corresponding one of the devices, so that processes based on the commands can be executed on the devices in a parallel manner.

15. An information processing system having a plurality of devices operating as system functions, in which an operating system and a BIOS program are executed, the information processing system comprising:

means for causing the BIOS program to execute a resume process including a first resume process for restoring an operation environment needed to operate the operating system, in response to occurrence of a wake up event while the information processing system is in a suspend state; and

means for causing the operating system to execute a second resume process for restoring the operation environment of each of the plurality of devices, before the end of the resume process executed by the BIOS program.